

What is claimed is:

1) A method for treating Obstructive Sleep Apnea Syndrome Syndrome (OSAS) with positive airway pressure (PAP) comprising:

5

- e) creating a single-piece, dual arch airway orthotic;
- f) using said airway orthotic to obturate the oral cavity via an acrylic seal between the upper and lower dental arches;
- g) retaining the upper and lower dental arches in elastomeric material via a snap-fit;
- 10 h) applying PAP via the nasal passages from tubing which is supported from said airway orthotic.

2) The method of Claim 1) and additionally comprising a single-piece, dual arch airway orthotic whereby the lower (mandibular) arch is preferably located or placed into neutral centric position with respect to the maxilla.

15 3) The method of Claim 1) and additionally comprising utilization of variable width PAP Tubing Retention Platforms which correlate with varied patient nare  
20 and/or nasal widths.

4) The method of Claim 1) and additionally comprising utilization of nasal pillows or inserts which are operably connected to said tubing.

25 5) The method of Claim 3) and additionally comprising customization of PAP Tubing angulation by heating the PAP Tubing Retention Platform.

6) The method of Claim 5) where the means of heating is via a micro torch.

30 7) The method of Claim 1) and additionally comprising professional laboratory processing of the single-piece, dual arch airway orthotic.

- 8) The method of Claim 7) and additionally comprising utilization of a three-dimensional bite registration.
- 5     9) The method of Claim 8) and additionally utilizing a three-dimensional bite registration that is created by a neuromuscular technique such as Transcutaneous Electrical Nerve Stimulation (TENS).
- 10    10) The method of Claim 8) whereby the three-dimensional bite registration captures the mandibular position with respect to the maxilla in neutral centric.
- 11) A device which obturates the oral cavity during treatment of OSAS consisting of:
  - 15    b) Single piece, dual arch oral appliance with a hard acrylic exterior and an interior lined with an elastomeric material;
  - b) Acrylically-bonded Variable Length Slide which supports a PAP Tubing Retention Platform that can vary the width of PAP Tubing Holes to correspond to varying nasal and nare widths.
- 12) The device of Claim 11) and additionally comprising alignment of the upper and lower dental arches into a preferred position within said elastomeric material whereby the mandible is not protruded and is located in neutral centric.
- 25    13) The device in Claim 11) wherein said single piece, dual arch oral appliance has the upper and lower arch components sealed with hard acrylic.
- 30    14) The device of Claim 11) and additionally comprising alignment of the upper and lower dental arches into a preferred position within said elastomeric material whereby the mandible is located in an anterior protruded position.

15) The device of Claim 12) and additionally comprising a means to create said preferred position of the mandible utilizing Transcutaneous Electrical Nerve Stimulation (TENS).

5

16) The device of Claim 11) whereby said PAP Tubing Retention Platform can be positioned on said Variable Length Slide such that PAP Tubing can be positioned antero-posteriorly within a range of 5mm to 30mm from the labial surface of the maxillary anterior teeth.

10

17) The device of Claim 11) whereby said variable width PAP Tubing Retention Platform is composed of acrylic material that is at least 3mm thick.

18) The method of applying PAP to nasal passages for the purpose of treating

15 OSAS comprising:

d) Fabricating an oral appliance which has an anterior, extraoral Slide affixed to said oral appliance;

e) Mounting a PAP Tubing Retention Platform to said extraoral Slide;

20 f) Varying the lateral width of the PAP Tubing Holes in said PAP Tubing Retention Platform to correspond with varying width noses and nares.

19) The method of Claim 18) and further comprising positioning of said PAP Tubing Retention Platform and said PAP Tubing Holes antero-posteriorly to a

25 position within a range of 5mm to 30mm from the labial surface of the maxillary anterior teeth.

20) The method of Claim 18) wherein said PAP Tubing Retention Platform is composed of acrylic material that is at least 3mm thick.

30

- 21) The method of Claim 20) wherein said acrylic material can be adjusted to optimize desired angulation via application of heat.
- 22) The method of Claim 18) wherein said PAP Tubing Retention Platform is  
5 vacuum formed subsequent to heating of the material.
- 23) The method of Claim 18) wherein said PAP Tubing Retention Platform is  
create via injection molding.
- 10 24) The method of Claim 18) wherein said oral appliance is a single-piece, dual  
arch obturator.
- 25) The method of Claim 24) where said obturator is composed of an exterior  
hard acrylic lined with an elastomeric material.  
15
- 26) The method of Claim 24) where the position of the mandible within said  
single-piece, dual arch obturator is in neutral centric.
- 27) The method of Claim 24) where the position of the mandible within said  
20 single-piece, dual arch obturator is in forward protruded position.
- 28) The method of Claim 18) wherein said Variable Length Slide is acryically  
bonded to the anterior surface of said oral appliance without the use of metal  
parts.  
25
- 29) The method of Claim 18) where said oral appliance is composed of a hard  
exterior acrylic and lined with an elastomeric material.
- 30) The method of Claim 18) where said oral appliance is manufactured in a  
30 professional laboratory.

31) The method of Claim 30) where fabrication of said oral appliance utilizes a three-dimensional bite registration to orient the position of the upper and lower dental arches.

5 32) The method of Claim 31) where said bite registration is produced utilizing Transcutaneous Electrical Nerve Stimulation (TENS).

10 33) The method of treating OSAS utilizing a dual arch oral appliance without protrusion of the mandible such that the mandibular arch is located in neutral centric position with respect to the maxillary arch.

34) The method of Claim 33) and further comprising support and stabilization of PAP Tubing from said dual arch oral appliance.

15 35) The method of Claim 34) and additionally comprising location of said PAP Tubing through variable width PAP Tubing Retention Platforms whereby said PAP Tubing Holes correspond to varying nasal and nare widths.

20 36) The method of Claim 33) and additionally comprising capture of said neutral centric position via Transcutaneous Electrical Nerve Stimulation (TENS).

37) The method of Claim 33) and additionally comprising capture of said neutral centric position via conventional techniques such as manual physical manipulation of the mandible by the clinician.

25

30